**Exhibit R-2**, **RDT&E Budget Item Justification:** PB 2013 Army **DATE**: February 2012

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army PE 0605606A: AIRCRAFT CERTIFICATION

BA 6: RDT&E Management Support

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	4.938	5.621	5.762	-	5.762	6.054	6.023	5.998	6.099	Continuing	Continuing
092: AIRCRAFT CERTIFICATION	4.938	5.621	5.762	-	5.762	6.054	6.023	5.998	6.099	Continuing	Continuing

#### Note

Army

FY13 funds realigned to higher priority requirements

### A. Mission Description and Budget Item Justification

The Airworthiness Certification program ensures flight safety and safe operation of Army aircraft and aviation systems by means of technical design approval and qualification of systems to appropriate airworthiness standards. It provides independent airworthiness qualification of all assigned developmental and in-production Army aircraft, both manned and unmanned, as required by AR 70-62, and is essential for ensuring the safe operation of Army aircraft. This program, when fully funded, performs all engineering functions (design, analysis, testing, demonstrations, and system specification compliance) essential for certifying the airworthiness of assigned Army aircraft, to include performing safety-of-flight investigations/assessments, evaluating system risks, developing Airworthiness Impact Statements, developing Airworthiness Flight Releases, and evaluating Safety of Flight Messages and Aviation Safety Action Messages for new and upgraded aircraft systems. This program also provides management/execution of the Army's Aeronautical Design Standards (ADS) program; management/execution of airworthiness approval for new systems and materiel changes for all assigned Army aircraft systems; airworthiness engineering support to the Program Executive Office for Aviation (PEO Avn) and the Technology Applications Program Office (TAPO, the Army's Special Operations Aircraft program office) in developing requirements for major development/ modification and for any future systems/subsystems; and management of the test and evaluation process in support of the airworthiness qualification process. The Airworthiness Certification program also performs general research and development in support of aircraft qualification and overarching airworthiness projects that involve multiple aircraft models. Current ongoing programs requiring airworthiness qualification are PEO Aviation and TAPO Future Force systems including Longbow Apache Block II and III; Chinook F-model; Blackhawk M-model and; Special Operations MH-47G and MH-60M; Armed Aerial Scout (AAS); Light Utility Helicopter; Extended Range/Multi Purpose (ER/MP) unmanned aircraft system (UAS); Enhanced Multi-sensor Airborne Reconnaissance and Sensor System (EMARSS); and Shadow-C UAS. Additionally the Airworthiness Certification program supports application of other critical aviation subsystems onto Army aircraft, including Aircraft Survivability Equipment (e.g. Advanced Threat Infrared Countermeasures (ATIRCM), Common Missile Warning System (CMWS), Aviation Mission Equipment e.g. advanced multiband radios like the Joint Tactical Radio System (JTRS) and digital data links, Common Sensor (electro-optical multi-spectrum visual sensor), and Blue Force Tracker. The D092 funding profile for the FY13 President's Budget Submission marginally funds the airworthiness certification program and therefore the effort will be limited to resourcing military use civil derivative aircraft technical qualification through the Federal Aviation Administration's Military Certification Office; development of airworthiness procedures, specifications, critical standards, and other design and qualification documents; participation in airworthiness related triservice activities (e.g. National Airworthiness Council, Joint Aviation Commanders Group) and international airworthiness related activities mandated by treaty e.g. Flight Into Non-segregated Airspace (FINAS); and limited early airworthiness involvement in Technology Transition projects e.g. Joint Multi Role (JMR) helicopter and other Office of the Secretary of Defense initiatives.

PE 0605606A: AIRCRAFT CERTIFICATION

UNCLASSIFIED
Page 1 of 7

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army PE 0605606A: AIRCRAFT CERTIFICATION

BA 6: RDT&E Management Support

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	5.055	5.630	8.403	-	8.403
Current President's Budget	4.938	5.621	5.762	-	5.762
Total Adjustments	-0.117	-0.009	-2.641	-	-2.641
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
<ul> <li>Reprogrammings</li> </ul>	-	-			
SBIR/STTR Transfer	-0.100	-			
<ul> <li>Adjustments to Budget Years</li> </ul>	-	-	-2.641	-	-2.641
Other Adjustments 1	-0.017	-0.009	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army							<b>DATE</b> : Febr	uary 2012			
2040: Research, Development, Test & Evaluation, Army							PROJECT 092: AIRCRAFT CERTIFICATION				
BA 6. RDT&E Management Support	BA 6: RDT&E Management Support										
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
092: AIRCRAFT CERTIFICATION	4.938	5.621	5.762	-	5.762	6.054	6.023	5.998	6.099	Continuing	Continuing
Quantity of RDT&E Articles											

### A. Mission Description and Budget Item Justification

The Airworthiness Certification program ensures flight safety and safe operation of Army aircraft and aviation systems by means of technical design approval and qualification of systems to appropriate airworthiness standards. It provides independent airworthiness qualification of all assigned developmental and in-production Army aircraft, both manned and unmanned, as required by AR 70-62, and is essential for ensuring the safe operation of Army aircraft. This program, when fully funded, performs all engineering functions (design, analysis, testing, demonstrations, and system specification compliance) essential for certifying the airworthiness of assigned Army aircraft, to include performing safety-of-flight investigations/assessments, evaluating system risks, developing Airworthiness Impact Statements, developing Airworthiness Flight Releases, and evaluating Safety of Flight Messages and Aviation Safety Action Messages for new and upgraded aircraft systems. This program also provides management/execution of the Army's Aeronautical Design Standards (ADS) program; management/execution of airworthiness approval for new systems and material changes for all assigned Army aircraft systems; airworthiness engineering support to the Program Executive Office for Aviation (PEO Avn) and the Technology Applications Program Office (TAPO, the Army's Special Operations Aircraft program office) in developing requirements for major development/ modification and for any future systems; and management of the test and evaluation process in support of the airworthiness gualification process. The Airworthiness Certification program also performs general research and development in support of aircraft qualification and overarching airworthiness projects that involve multiple aircraft models. Current ongoing programs requiring airworthiness qualification are PEO Aviation and TAPO Future Force systems including Longbow Apache Block II and III; Chinook F-model; Blackhawk M-model and; Special Operations MH-47G and MH-60M; Armed Aerial Scout (AAS); Light Utility Helicopter; Extended Range/Multi Purpose (ER/MP) unmanned aircraft system (UAS); Enhanced Multi-sensor Airborne Reconnaissance and Sensor System (EMARSS); and Shadow-C UAS. Additionally the Airworthiness Certification program supports application of other critical aviation subsystems onto Army aircraft, including Aircraft Survivability Equipment (e.g. Advanced Threat Infrared Countermeasures (ATIRCM), Common Missile Warning System (CMWS), Aviation Mission Equipment e.g. advanced multiband radios like the Joint Tactical Radio System (JTRS) and digital data links, Common Sensor (electro-optical multi-spectrum visual sensor), and Blue Force Tracker. The D092 funding profile for the FY13 President's Budget Submission marginally funds the airworthiness certification program and therefore the effort will be limited to resourcing military use civil derivative aircraft technical qualification through the Federal Aviation Administration's Military Certification Office; development of airworthiness procedures, specifications, critical standards, and other design and qualification documents; participation in airworthiness related triservice activities (e.g. National Airworthiness Council, Joint Aviation Commanders Group) and international airworthiness related activities mandated by treaty e.g. Flight Into Non-segregated Airspace (FINAS); and limited early airworthiness involvement in Technology Transition projects e.g. Joint Multi Role (JMR) helicopter and other Office of the Secretary of Defense initiatives.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Certification Assessments and Studies Force Modernization Aircraft	0.050	0.050	0.050
Articles:	0	0	
<b>Description:</b> Perform assessments and studies in support of Force Modernization Aircraft Systems			

PE 0605606A: AIRCRAFT CERTIFICATION

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: Fel	oruary 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 6: RDT&E Management Support	PROJEC 092: AIR	AIRCRAFT CERTIFICATION			
B. Accomplishments/Planned Programs (\$ in Millions, Article C	Quantities in Each <u>)</u>		FY 2011	FY 2012	FY 2013
FY 2011 Accomplishments: Conducted technical and airworthiness qualification assessments a performance for Army force modernization aircraft systems or multi MH-60M, AAS, etc).	•	l-47G,			
FY 2012 Plans: Conduct technical and airworthiness qualification assessments and for Army force modernization aircraft systems or multi-system progretc).					
FY 2013 Plans: Will conduct technical and airworthiness qualification assessments performance for Army force modernization aircraft systems or multi MH-60M, AAS, etc).					
<b>Title:</b> Certification Requirements and Studies for Future Aircraft		Articles:	0.735 0	0.773 0	0.773
<b>Description:</b> Perform studies to support airworthiness certification	requirements for Future Aircraft Systems				
FY 2011 Accomplishments: Conducted studies of Airworthiness Certification requirements for full (e.g. Joint Multi-Roll Aircraft, Versatile Affordable Advanced Turbine		programs			
FY 2012 Plans: Conduct studies of Airworthiness Certification requirements for futu (e.g. Joint Multi-Roll Aircraft, Versatile Affordable Advanced Turbine		ograms			
FY 2013 Plans: Will conduct studies of Airworthiness Certification requirements for programs (e.g. Joint Multi-Roll Aircraft, Versatile Affordable Advance)		า			
Title: Design Standards		Articles:	2.541	2.922	2.951
<b>Description:</b> Support the development, implementation and mainted airworthiness procedures and tools, and overarching Airworthiness					

PE 0605606A: AIRCRAFT CERTIFICATION Army

UNCLASSIFIED
Page 4 of 7

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: Fel	oruary 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 6: RDT&E Management Support	ECT AIRCRAFT CERTIFICATION				
B. Accomplishments/Planned Programs (\$ in Millions, Article	Quantities in Each)		FY 2011	FY 2012	FY 2013
FY 2011 Accomplishments:  Developed, implemented, and maintained Army Aeronautical Desoverarching airworthiness qualification documentation.	sign Standards, airworthiness procedures and tools, and	d			
FY 2012 Plans: Develop, implement, and maintain Army Aeronautical Design Sta airworthiness qualification documentation.	ndards, airworthiness procedures and tools, and overa	rching			
FY 2013 Plans: Will develop, implement, and maintain Army Aeronautical Design airworthiness qualification documentation.	Standards, airworthiness procedures and tools, and over	erarching			
Title: Certification Assessments of Technology Upgrades		Articles:	0.050	0.050	0.050
<b>Description:</b> Perform certification assessments of technology up	grades.	Articles.		o	
FY 2011 Accomplishments: Conducted technical and airworthiness certification assessments systems or programs (e.g. Advanced Threat Infrared Countermed Common Sensor integration)					
FY 2012 Plans: Conduct technical and airworthiness certification assessments of systems or programs (e.g. Advanced Threat Infrared Countermed Common Sensor integration)					
FY 2013 Plans: Will conduct technical and airworthiness certification assessment systems or programs (e.g. Advanced Threat Infrared Countermed Common Sensor integration)					
Title: Commercial Derivative Aircraft		Articles:	0.548	0.548	0.548
<b>Description:</b> Technical and airworthiness qualification for Comm	ercial Derivative Aircraft	Ai licies.	0	o	
FY 2011 Accomplishments:					
		1	I		

PE 0605606A: *AIRCRAFT CERTIFICATION* Army

UNCLASSIFIED
Page 5 of 7

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: Feb	oruary 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 6: RDT&E Management Support	PE 0605606A: AIRCRAFT CERTIFICATION 092: AIRCRAFT CERTIFIC				
B. Accomplishments/Planned Programs (\$ in Millions, Article	Quantities in Each)		FY 2011	FY 2012	FY 2013
Provided technical and airworthiness qualification for Commercial	Derivative Aircraft through the Federal Aviation Admin	istration			
FY 2012 Plans: Provide technical and airworthiness qualification for Commercial D	erivative Aircraft through the Federal Aviation Adminis	stration			
FY 2013 Plans: Will provide technical and airworthiness qualification for Commerci Administration	al Derivative Aircraft through the Federal Aviation				
Title: Technology Advancement		Articles:	1.014 0	1.278 0	1.390
Description: Support efforts to establish and maintain aircraft safe	ety for a fleet of aircraft.				
FY 2011 Accomplishments:  Led and participated in national and international airworthiness cer responsible for establishing and maintaining aircraft safety for a fle Commanders Group, Joint Council on Aging Aircraft, Joint Propuls (NATO) working groups, Global Air Traffic Management working groups.	et of aircraft (e.g. National Airworthiness Council, Joir ion Coordinating Committee, North Atlantic Treaty Org	t Aviation			
FY 2012 Plans: Lead and participate in national and international airworthiness cer responsible for establishing and maintaining aircraft safety for a fle Commanders Group, Joint Council on Aging Aircraft, Joint Propuls (NATO) working groups, Air and Space Interoperability Council (Asgroups).	et of aircraft (e.g. National Airworthiness Council, Joir ion Coordinating Committee, North Atlantic Treaty Org	t Aviation ganization			
FY 2013 Plans: Will lead and participate in national and international airworthiness responsible for establishing and maintaining aircraft safety for a fle Commanders Group, Joint Council on Aging Aircraft, Joint Propuls (NATO) working groups, Air and Space Interoperability Council (Asgroups).	et of aircraft (e.g. National Airworthiness Council, Joir ion Coordinating Committee, North Atlantic Treaty Org	t Aviation ganization			
	Accomplishments/Planned Programs	Subtotals	4.938	5.621	5.762

PE 0605606A: *AIRCRAFT CERTIFICATION* Army

UNCLASSIFIED
Page 6 of 7

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army	DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
2040: Research, Development, Test & Evaluation, Army BA 6: RDT&E Management Support	PE 0605606A: AIRCRAFT CERTIFICATION	092: AIRCRAFT CERTIFICATION
C. Other Program Funding Summary (\$ in Millions)		
N/A		
D. Acquisition Strategy N/A		
E. Performance Metrics		
Performance metrics used in the preparation of this justification m	naterial may be found in the FY 2010 Army Performan	ce Budget Justification Book, dated May 2010.

PE 0605606A: AIRCRAFT CERTIFICATION Army

**UNCLASSIFIED** Page 7 of 7